

STATE OF DELAWARE

Delaware Public Service Commission

Electric Service Reliability and Quality Standards

Delmarva Power 2006 Annual Performance Report

As stated in the Delaware Public Service Commission (DE-PSC) Regulation Docket No. 50, each electric distribution company (EDC) shall submit an annual Performance Report to the DE-PSC by April 30. The report requirement is contained in Section 10 of the Commission Order. This document is presented as Delmarva Power's 2007 Annual Performance Report. Section 10 of the commission order is reproduced in the report with Delmarva Power's response inserted after each sub-section.

CERTIFICATION

William M. Gausman, an officer of the PHI Holding Incorporated, does hereby certify that the data and analysis set forth in the attached 2006 Annual Performance Report of Delmarva Power & Light Company is true and correct based upon the collection and analysis of the data by authorized employees and representatives of the Company. I further certify that the necessary projects, maintenance programs and other actions are being performed and adequately funded by the Company and addressed in the capital and operations and maintenance budgets and plans to help achieve benchmark reliability levels and, at a minimum, to maintain the minimum reliability levels, as those terms are defined in the Electric Service Reliability and Quality Standards for our service territory in the State of Delaware. This certification is based upon my review of the data and analysis contained herein and my overall knowledge of the operations and practices of the Delmarva Power & Light Company.



William M. Gausman
Vice President
Asset Management

10.0 Annual Performance Report

- 10.1. By April 30 of each year, each EDC shall submit an annual Performance Report, summarizing the actual electric service reliability results. The report shall include the EDC's average three-year performance results, actual year-end performance measure results and an assessment of the results/effectiveness of the reliability objectives, planned actions and projects, programs, and load studies in achieving an acceptable reliability level.

Response to 10.1:

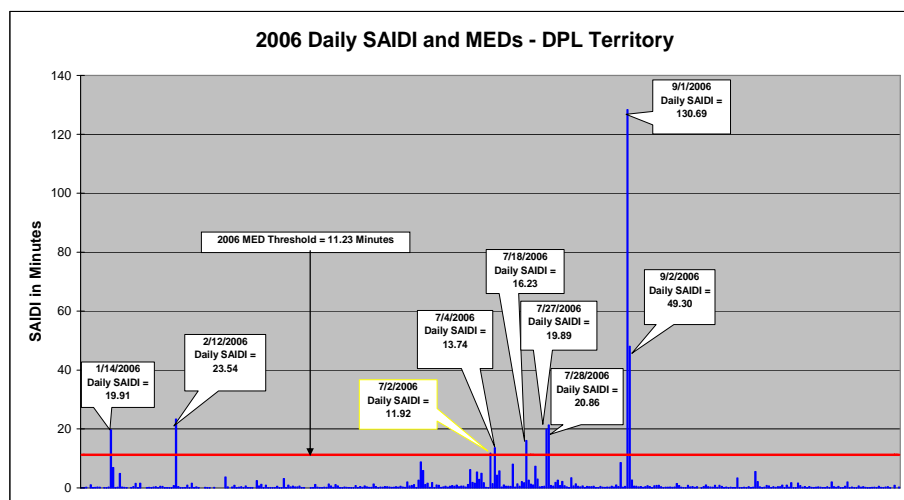
Average Three-Year Performance results and actual year-end performance measure results are provided below:

Year	Reliability Indices - System (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
2004	1.61	152	244
2005	1.51	112	169
2006	1.63	144	234
AVG (2004 - 2006)	1.58	136	216

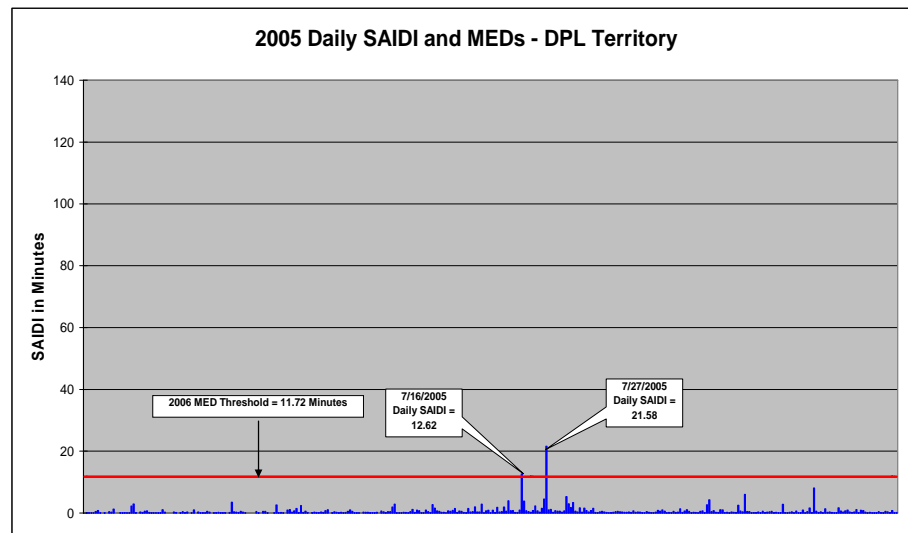
Year	Reliability Indices - System (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
Current Year (2006)	1.63	144	234

Benchmark of SAIDI for DP&L (See Section 4.3.1.2) ----->	295
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Although the 2006 reliability performance (SAIDI) was below the established benchmark of 295 minutes, the trend has increased as compared to 2005. The increase of SAIFI, CAIDI and SAIDI in 2006 over 2005 was primarily due to an increase in the number of inclement weather days experienced in 2006. A large portion of these storms was below the established Major Event Days (MEDs) threshold and therefore was not excluded from the calculations. The following graph represents spikes of storm days affecting DPL customers during 2006. Only interruptions above the red line (a total of 8 events) were declared as "Major Event Days (MEDs)".



In comparison, during 2005, the inclement weather was not as significant as 2006, particularly when comparing the daily SAIDI values during the summer.



We will continue monitoring the performance of the distribution and transmission system closely to further determine trends, cause of interruptions and recommend the necessary correction actions. Delmarva assesses the effectiveness of its programs by

- Evaluating on an on-going basis, the performance of the distribution and transmission system by identifying areas that have significant impact on the performance of multiple breaker operations, multiple fuse operations and CEMI₈;
- Performing quality assurance on recommended work by ensuring implementation based on Standards and design;
- Analyzing performance data for confirming the effectiveness of remedial actions; and
- Conducting Circuit's load study and developing recommendations for proactive actions.

The following programs/projects are performed periodically in support of maintaining a reliable system.

- | | |
|---|------------------------------------|
| • Infrared Circuit Scans | • Customer Inquiry Responses |
| • Vegetation Management | • System Maintenance |
| • Wood Pole Inspections & Treatment | • Transmission Aerial Line Patrols |
| • Capital Projects | |
| • Multiple Interruption Evaluation (includes multiple breaker/multiple fuse operations) | |

The following table below is taken from the 2006 Planning & Studies Report and indicates the progress on each listed project.

Reliability & Load Driven Projects in Delaware 2006 Planning Report Project Status			
Description	Planned ISD	Status as of April 1, 2007	Driver
Bridgeville Substation Tr #1: Replace with a 69/12kV 28MVA transformer and upgrade circuit terminals	5/31/2006	Project Completed	Load
Kent Substation Feeder 2233: Upgrade circuit terminal & re-conductor	5/31/2006	Project Completed	Load
Kent Substation: Add a new 25kV circuit terminal and extend a new 25kV circuit	5/31/2006	Project Completed	Load
Hockessin Substation Feeders 243 & 244: Relocate circuits to new switchgear fed from new TR #5	5/31/2006	Project Complete	Reliability
Keeney Substation Feeder 3314: Install New 34/12kV Padmount and extend 12kV circuit	12/31/2006	Project Postponed to September 2007*	Reliability
Townsend Feeder 2511: Re-conductor	6/30/2007	Complete	Load
North Wilmington Substation: Convert Portion of 4kV to 12kV	12/30/2007	04/30/2007	Reliability
Re-conductor rear lot line construction in the vicinity of Route 4 near Newark	12/30/2010	Cancelled	Reliability
Southern New Castle County 69 to 138kV Conversion	12/31/2006	06/30/2007	Load Driven
Red Lion to Milford to Indian River 230kV Line	5/31/2006	Complete	Reliability / Load Driven
Replace Buried Distribution Cable	12/31/2006	Complete	Reliability
Priority Feeder Improvements	12/31/2006	Complete	Reliability

* Transformer design and manufacture delayed project to September 2007.

10.2. *Delivery facilities year-end performance measures, as established in Section 4,*

Section 4, paragraph 1 is reproduced here for reference

4.0. Reliability and Quality Performance Benchmarks

4.1. The measurement of reliability and quality performance shall be based on annual SAIDI and Constrained Hours of Operation measures for each EDC. The SAIDI calculation shall include all Delaware customer outages, excluding major events, and shall be reported along with its SAIFI and CAIDI components, subdivided by its distribution, substation and transmission components. The Constrained Hours of Operations shall be based on peninsula (DPL Zone) transmission system contingency limitations that require the dispatch of off-cost generation, excluding generation or transmission forced outages, generation or transmission related construction or any unrelated third party actions.

paragraph 1 shall be reported as follows:

10.2.1. *SAIDI, SAIFI, and CAIDI measures:*

10.2.1.1. *Current year and three-year average reflecting Delaware performance, classified by distribution, substation and transmission components*

Response to 10.2.1.1:

Distribution:

Year	Reliability Indices - Distribution (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
2004	1.55	154	239
2005	1.44	114	164
2006	1.43	151	215
AVG (2004 - 2006)	1.47	140	206

Year	Reliability Indices - Distribution (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
Current Year (2006)	1.43	151	215

Substation:

Year	Reliability Indices - Substation (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
2004	0.05	88	4
2005	0.04	85	3
2006	0.13	119	15
AVG (2004 - 2006)	0.07	97	8

Year	Reliability Indices - Substation (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
Current Year (2006)	0.13	119	15

Transmission:

Year	Reliability Indices - Transmission (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
2004	0.01	145	2
2005	0.04	52	2
2006	0.07	53	4
AVG (2004 - 2006)	0.04	83	2

Year	Reliability Indices - Transmission (MEDs Exclusive)		
	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
Current Year (2006)	0.07	53	4

10.2.1.2. *Current year for each feeder circuit providing service to Delaware customers, regardless of state origin.*

Response to 10.2.1.2:

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	OLD KENNETT ROAD	DE0002	4.05	248	1,006
CHRISTIANA	NORTH WILMINGTON	DE0008	0.00	0	0
CHRISTIANA	NORTH WILMINGTON	DE0009	0.00	0	0
CHRISTIANA	NORTH WILMINGTON	DE0010	0.00	0	0
CHRISTIANA	NORTH WILMINGTON	DE0011	1.90	417	794
CHRISTIANA	NORTH WILMINGTON	DE0012	4.96	305	1,512
CHRISTIANA	ROGERS ROAD	DE0014	4.17	266	1,110
CHRISTIANA	ROGERS ROAD	DE0015	0.00	0	0
CHRISTIANA	ROGERS ROAD	DE0016	2.67	266	712
CHRISTIANA	ROGERS ROAD	DE0017	1.06	277	292

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	SILVERSIDE ROAD	DE0018	2.13	147	314
CHRISTIANA	SILVERSIDE ROAD	DE0019	2.37	117	276
CHRISTIANA	SILVERSIDE ROAD	DE0020	1.80	61	110
CHRISTIANA	CHRISTIANA	DE0092	0.17	326	55
CHRISTIANA	CHRISTIANA	DE0093	1.38	140	193
CHRISTIANA	CHRISTIANA	DE0094	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0095	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0096	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0097	1.00	98	98
CHRISTIANA	CHRISTIANA	DE0098	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0099	0.04	411	15
CHRISTIANA	CHRISTIANA	DE0100	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0101	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0102	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0103	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0104	10.35	127	1,313
CHRISTIANA	CHRISTIANA	DE0105	0.11	180	20
CHRISTIANA	CHRISTIANA	DE0106	1.90	212	402
CHRISTIANA	CHRISTIANA	DE0107	1.25	297	371
CHRISTIANA	CHRISTIANA	DE0108	2.14	354	759
CHRISTIANA	CHRISTIANA	DE0109	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0110	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0111	2.98	136	405
CHRISTIANA	CHRISTIANA	DE0112	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0113	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0114	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0116	0.04	342	14
CHRISTIANA	CHRISTIANA	DE0117	0.00	0	0
CHRISTIANA	CHRISTIANA	DE0118	1.16	167	193
CHRISTIANA	CHRISTIANA	DE0119	0.63	244	154
CHRISTIANA	WEST WILMINGTON	DE0130	1.63	166	270
CHRISTIANA	WEST WILMINGTON	DE0131	0.20	172	35
CHRISTIANA	WEST WILMINGTON	DE0132	0.27	346	94
CHRISTIANA	WEST WILMINGTON	DE0133	0.82	272	222
CHRISTIANA	WEST WILMINGTON	DE0134	2.86	155	443
CHRISTIANA	WEST WILMINGTON	DE0135	1.23	167	205
CHRISTIANA	WEST WILMINGTON	DE0136	2.67	169	452
CHRISTIANA	WEST WILMINGTON	DE0137	0.59	122	72
CHRISTIANA	WEST	DE0140	0.48	151	72
CHRISTIANA	WEST	DE0141	1.60	273	437

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	WEST	DE0142	0.68	116	79
CHRISTIANA	WEST	DE0143	1.65	252	414
CHRISTIANA	WEST	DE0144	1.29	161	207
CHRISTIANA	WEST	DE0145	1.54	76	117
CHRISTIANA	WEST	DE0146	1.34	135	181
CHRISTIANA	WEST	DE0147	0.53	134	72
CHRISTIANA	WEST	DE0148	2.07	220	455
CHRISTIANA	WEST	DE0149	0.58	209	122
CHRISTIANA	FIFTH STREET	DE0151	0.00	0	0
CHRISTIANA	FIFTH STREET	DE0152	0.00	0	0
CHRISTIANA	FIFTH STREET	DE0153	0.00	0	0
CHRISTIANA	FIFTH STREET	DE0154	0.00	0	0
CHRISTIANA	FIFTH STREET	DE0155	0.00	0	0
CHRISTIANA	FIFTH STREET	DE0156	0.00	0	0
CHRISTIANA	NEW CASTLE	DE0160	2.03	274	558
CHRISTIANA	NEW CASTLE	DE0161	0.07	147	10
CHRISTIANA	NEW CASTLE	DE0162	0.00	0	0
CHRISTIANA	NEW CASTLE	DE0163	2.53	448	1,133
CHRISTIANA	NEW CASTLE	DE0164	2.12	164	348
CHRISTIANA	NEW CASTLE	DE0165	0.13	55	7
CHRISTIANA	NEW CASTLE	DE0166	2.36	82	193
CHRISTIANA	NEW CASTLE	DE0167	0.31	549	172
CHRISTIANA	NEW CASTLE	DE0168	1.50	476	714
CHRISTIANA	NEW CASTLE	DE0169	1.47	86	126
CHRISTIANA	CHAPEL	DE0172	2.04	65	133
CHRISTIANA	GLASGOW	DE0175	1.80	131	236
CHRISTIANA	GLASGOW	DE0176	1.08	42	45
CHRISTIANA	BASIN ROAD	DE0181	1.72	87	150
CHRISTIANA	BASIN ROAD	DE0182	1.74	190	329
CHRISTIANA	BASIN ROAD	DE0183	0.17	158	27
CHRISTIANA	BASIN ROAD	DE0184	0.12	191	24
CHRISTIANA	DELAWARE CITY	DE0187	0.00	0	0
CHRISTIANA	DELAWARE CITY	DE0188	0.00	0	0
CHRISTIANA	DELAWARE CITY	DE0189	0.00	0	0
CHRISTIANA	REYBOLD	DE0190	1.84	107	197
CHRISTIANA	REYBOLD	DE0191	0.11	165	18
CHRISTIANA	REYBOLD	DE0192	2.48	127	316
CHRISTIANA	REYBOLD	DE0193	11.72	165	1,937
CHRISTIANA	EDGEMOOR	DE0201	0.00	0	0
CHRISTIANA	EDGEMOOR	DE0202	1.49	172	255

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	EDGEMOOR	DE0203	1.17	207	243
CHRISTIANA	EDGEMOOR	DE0204	0.00	0	0
CHRISTIANA	EDGEMOOR	DE0207	0.00	0	0
CHRISTIANA	EDGEMOOR	DE0208	0.00	0	0
CHRISTIANA	EDGEMOOR	DE0209	2.62	160	420
CHRISTIANA	EDGEMOOR	DE0212	3.22	105	339
CHRISTIANA	EDGEMOOR	DE0213	1.34	142	190
CHRISTIANA	EDGEMOOR	DE0216	2.22	172	382
CHRISTIANA	EDGEMOOR	DE0217	4.25	228	970
CHRISTIANA	EDGEMOOR	DE0218	0.00	0	0
CHRISTIANA	EDGEMOOR	DE0219	2.01	298	598
CHRISTIANA	BROOKSIDE ROAD	DE0221	2.55	168	428
CHRISTIANA	BROOKSIDE ROAD	DE0222	3.14	124	387
CHRISTIANA	BROOKSIDE ROAD	DE0223	2.14	220	470
CHRISTIANA	MONTCHANIN ROAD	DE0231	2.31	201	464
CHRISTIANA	MONTCHANIN ROAD	DE0232	2.98	212	634
CHRISTIANA	POINT BREEZE	DE0236	0.71	154	110
CHRISTIANA	POINT BREEZE	DE0237	0.22	234	51
CHRISTIANA	POINT BREEZE	DE0238	0.68	205	139
CHRISTIANA	POINT BREEZE	DE0239	0.51	150	77
CHRISTIANA	HOCKESSIN	DE0241	0.49	170	83
CHRISTIANA	HOCKESSIN	DE0242	0.00	0	0
CHRISTIANA	HOCKESSIN	DE0243	1.06	460	487
CHRISTIANA	HOCKESSIN	DE0244	0.38	325	124
CHRISTIANA	HOCKESSIN	DE0245	2.15	228	491
CHRISTIANA	CHURCHMANS	DE0251	0.47	447	208
CHRISTIANA	CHURCHMANS	DE0252	3.48	114	398
CHRISTIANA	CHURCHMANS	DE0253	1.39	188	261
CHRISTIANA	CHURCHMANS	DE0254	0.00	0	0
CHRISTIANA	CHURCHMANS	DE0255	0.47	142	67
CHRISTIANA	CHURCHMANS	DE0256	0.75	158	119
CHRISTIANA	CHESTNUT RUN	DE0260	0.00	0	0
CHRISTIANA	CHESTNUT RUN	DE0261	0.00	0	0
CHRISTIANA	CHESTNUT RUN	DE0263	1.50	246	368
CHRISTIANA	CHESTNUT RUN	DE0265	1.36	197	268
CHRISTIANA	SILVERSIDE ROAD	DE0272	3.70	128	473
CHRISTIANA	SILVERSIDE ROAD	DE0273	1.45	102	147
CHRISTIANA	SILVERSIDE ROAD	DE0274	1.11	362	402
CHRISTIANA	SILVERSIDE ROAD	DE0276	0.31	217	68
CHRISTIANA	NAAMANS ROAD	DE0280	0.00	0	0

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	NAAMANS ROAD	DE0281	0.09	298	26
CHRISTIANA	NAAMANS ROAD	DE0282	0.23	140	32
CHRISTIANA	TALLEYVILLE	DE0284	1.66	145	241
CHRISTIANA	TALLEYVILLE	DE0285	2.70	120	324
CHRISTIANA	TALLEYVILLE	DE0286	0.55	222	121
CHRISTIANA	TALLEYVILLE	DE0287	1.16	109	126
CHRISTIANA	TALLEYVILLE	DE0288	0.69	221	153
CHRISTIANA	TALLEYVILLE	DE0289	1.30	106	137
CHRISTIANA	MILLFORD CROSS	DE0290	3.80	147	557
CHRISTIANA	MILLFORD CROSS	DE0291	3.04	222	673
CHRISTIANA	MILLFORD CROSS	DE0292	2.30	126	290
CHRISTIANA	MILLFORD CROSS	DE0293	3.89	138	538
CHRISTIANA	TENTH STREET	DE0382	0.00	0	0
CHRISTIANA	TENTH STREET	DE0383	0.04	90	3
CHRISTIANA	TENTH STREET	DE0384	0.50	129	65
MILLSBORO	BETHANY	DE0500	1.27	121	154
MILLSBORO	BETHANY	DE0501	0.29	195	56
MILLSBORO	BETHANY	DE0502	1.03	173	178
MILLSBORO	BETHANY	DE0503	0.13	128	16
MILLSBORO	BRIDGEVILLE	DE0504	3.02	108	326
MILLSBORO	BRIDGEVILLE	DE0505	3.11	147	459
MILLSBORO	LAUREL	DE0506	2.26	50	112
MILLSBORO	LAUREL	DE0507	1.59	76	122
MILLSBORO	LAUREL	DE0508	2.37	55	130
MILLSBORO	LAUREL	DE0509	2.12	196	414
MILLSBORO	MIDWAY	DE0510	1.44	60	86
MILLSBORO	WYOMING	DE0512	0.00	0	0
MILLSBORO	WYOMING	DE0513	2.58	74	190
MILLSBORO	NELSON	DE0514	1.49	66	98
MILLSBORO	NORTH SEAFORD	DE0516	2.13	147	314
MILLSBORO	NORTH SEAFORD	DE0517	0.91	128	116
MILLSBORO	REHOBOTH	DE0519	0.53	227	120
MILLSBORO	REHOBOTH	DE0520	0.12	138	17
MILLSBORO	REHOBOTH	DE0521	0.70	24	17
MILLSBORO	REHOBOTH	DE0522	1.14	92	105
MILLSBORO	REHOBOTH	DE0523	1.71	105	180
MILLSBORO	SUSSEX	DE0524	1.19	140	167
MILLSBORO	SUSSEX	DE0525	0.26	73	19
MILLSBORO	SUSSEX	DE0526	0.10	226	24
MILLSBORO	FIVE POINTS	DE0527	0.07	106	8

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
MILLSBORO	FIVE POINTS	DE0528	1.86	80	149
MILLSBORO	FIVE POINTS	DE0530	0.10	191	18
MILLSBORO	CEDAR NECK	DE0531	2.36	56	131
MILLSBORO	CEDAR NECK	DE0532	1.27	121	154
MILLSBORO	CEDAR NECK	DE0533	1.12	16	18
MILLSBORO	GREENWOOD	DE0558	1.06	344	364
CHRISTIANA	HARMONY	DE0601	1.68	59	100
CHRISTIANA	HARMONY	DE0602	0.87	187	163
CHRISTIANA	HARMONY	DE0603	1.15	316	363
CHRISTIANA	HARMONY	DE0604	1.98	239	473
CHRISTIANA	HARMONY	DE0605	1.04	83	85
CHRISTIANA	HARMONY	DE0606	0.26	120	31
CHRISTIANA	HARMONY	DE0607	1.15	128	147
CHRISTIANA	HARES CORNER	DE0610	0.76	197	150
CHRISTIANA	HARES CORNER	DE0611	0.03	171	4
CHRISTIANA	HARES CORNER	DE0612	9.10	181	1,649
CHRISTIANA	HARES CORNER	DE0613	0.59	96	57
CHRISTIANA	DARLEY ROAD	DE0621	1.03	134	138
CHRISTIANA	DARLEY ROAD	DE0622	0.04	361	13
CHRISTIANA	DARLEY ROAD	DE0623	1.61	216	348
CHRISTIANA	DARLEY ROAD	DE0624	1.06	272	287
CHRISTIANA	DARLEY ROAD	DE0625	1.16	129	149
CHRISTIANA	MILLTOWN ROAD	DE0640	3.41	122	416
CHRISTIANA	MILLTOWN ROAD	DE0645	0.51	209	105
CHRISTIANA	MILLTOWN ROAD	DE0647	0.59	165	97
CHRISTIANA	MILLTOWN ROAD	DE0648	1.77	159	280
CHRISTIANA	MILLTOWN ROAD	DE0649	1.02	130	132
CHRISTIANA	LITTLE FALLS	DE0658	0.36	144	52
CHRISTIANA	LITTLE FALLS	DE0659	2.66	143	381
CHRISTIANA	FAULK ROAD	DE0662	0.76	129	98
CHRISTIANA	FAULK ROAD	DE0665	0.45	203	91
CHRISTIANA	FAULK ROAD	DE0667	2.59	68	175
CHRISTIANA	FAULK ROAD	DE0672	1.99	226	448
CHRISTIANA	FAULK ROAD	DE0675	0.94	286	268
CHRISTIANA	KEENEY 138KV	DE0691	1.55	517	800
CHRISTIANA	KEENEY 138KV	DE0692	1.16	169	196
CHRISTIANA	KEENEY 138KV	DE0693	0.13	192	26
CHRISTIANA	SUNSET LAKE	DE0700	2.21	44	98
CHRISTIANA	SUNSET LAKE	DE0701	1.25	55	69
CHRISTIANA	SUNSET LAKE	DE0702	2.19	68	150

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	SUNSET LAKE	DE0704	0.68	157	107
CHRISTIANA	SUNSET LAKE	DE0705	0.44	162	71
CHRISTIANA	SUNSET LAKE	DE0706	0.00	0	0
CHRISTIANA	SUNSET LAKE	DE0707	0.18	766	138
CHRISTIANA	BRANDYWINE	DE0721	0.00	0	0
CHRISTIANA	BRANDYWINE	DE0722	0.00	0	0
CHRISTIANA	BRANDYWINE	DE0723	2.44	131	320
CHRISTIANA	BRANDYWINE	DE0724	3.07	64	195
CHRISTIANA	BRANDYWINE	DE0725	0.00	0	0
CHRISTIANA	BRANDYWINE	DE0726	1.00	176	176
CHRISTIANA	BRANDYWINE	DE0727	2.29	250	571
CHRISTIANA	BRANDYWINE	DE0728	0.09	160	14
CHRISTIANA	BRANDYWINE	DE0729	2.02	65	132
CHRISTIANA	BRANDYWINE	DE0730	0.89	90	80
CHRISTIANA	BRANDYWINE	DE0731	0.00	0	0
CHRISTIANA	BRANDYWINE	DE0732	0.18	330	60
CHRISTIANA	BRANDYWINE	DE0733	0.00	0	0
CHRISTIANA	BRANDYWINE	DE0734	0.00	0	0
CHRISTIANA	MERMAID	DE0742	0.01	371	4
CHRISTIANA	MERMAID	DE0743	1.95	186	362
CHRISTIANA	MERMAID	DE0744	1.66	89	147
CHRISTIANA	MERMAID	DE0745	1.13	65	73
CHRISTIANA	MERMAID	DE0746	1.23	129	158
CHRISTIANA	MERMAID	DE0747	2.33	108	251
CHRISTIANA	BEAR	DE0750	0.10	141	13
CHRISTIANA	BEAR	DE0751	0.18	313	58
CHRISTIANA	BEAR	DE0752	1.03	224	231
CHRISTIANA	BEAR	DE0753	0.29	205	59
CHRISTIANA	BEAR	DE0754	4.35	121	528
CHRISTIANA	BEAR	DE0755	0.16	159	25
CHRISTIANA	BEAR	DE0756	0.26	334	86
CHRISTIANA	BEAR	DE0757	1.74	127	221
MILLSBORO	FRANKFORD	DE2207	1.02	165	168
MILLSBORO	FRANKFORD	DE2208	5.37	81	436
MILLSBORO	MILFORD	DE2211	0.16	265	43
MILLSBORO	CHESWOLD	DE2218	0.26	235	60
MILLSBORO	CLAYTON	DE2225	0.67	91	61
MILLSBORO	CLAYTON	DE2226	1.36	25	34
MILLSBORO	KENT	DE2228	0.01	198	3
MILLSBORO	HARRINGTON	DE2229	1.13	23	26

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
MILLSBORO	HARRINGTON	DE2230	0.13	219	28
MILLSBORO	KENT	DE2233	4.69	110	515
MILLSBORO	FELTON	DE2235	0.48	101	48
MILLSBORO	HARBESON	DE2237	0.10	216	22
MILLSBORO	KENT	DE2241	1.76	107	188
MILLSBORO	FELTON	DE2247	1.21	132	159
MILLSBORO	CHESWOLD	DE2249	0.00	0	0
MILLSBORO	HARBESON	DE2270	0.00	0	0
MILLSBORO	MILLSBORO	DE2271	3.68	102	375
MILLSBORO	MILLSBORO	DE2272	0.15	184	27
MILLSBORO	HARRINGTON	DE2273	1.17	63	74
MILLSBORO	MILFORD	DE2278	1.11	223	248
MILLSBORO	MILLSBORO	DE2280	5.64	115	649
CHRISTIANA	CEDAR CREEK	DE2500	4.77	113	539
CHRISTIANA	TOWNSEND	DE2511	9.30	178	1,652
CHRISTIANA	TOWNSEND	DE2512	8.29	260	2,155
CHRISTIANA	RED LION	DE2520	2.12	205	435
CHRISTIANA	LUMS POND	DE2531	0.34	159	53
CHRISTIANA	LUMS POND	DE2532	2.36	79	186
CHRISTIANA	LUMS POND	DE2533	1.47	133	195
CHRISTIANA	MOUNT PLEASANT	DE2540	4.26	134	571
CHRISTIANA	MOUNT PLEASANT	DE2541	5.73	75	427
CHRISTIANA	MOUNT PLEASANT	DE2542	3.48	120	418
CHRISTIANA	SUNSET LAKE	DE2550	0.00	0	0
CHRISTIANA	SUNSET LAKE	DE2552	1.32	103	135
CHRISTIANA	WEST	DE3302	0.00	0	0
CHRISTIANA	WEST	DE3304	1.18	989	1,169
CHRISTIANA	SILVERBROOK	DE3305	0.00	0	0
CHRISTIANA	SILVERBROOK	DE3306	0.00	0	0
CHRISTIANA	SILVERBROOK	DE3307	3.63	285	1,033
CHRISTIANA	KIAMENSI	DE3312	0.00	0	0
CHRISTIANA	KEENEY EHV	DE3313	12.00	174	2,088
CHRISTIANA	KEENEY EHV	DE3315	1.00	61	61
CHRISTIANA	KEENEY EHV	DE3317	0.00	0	0
CHRISTIANA	GLASGOW	DE3325	1.33	229	305
CHRISTIANA	CARRCROFT	DE3331	1.29	457	587
CHRISTIANA	SILVERSIDE ROAD	DE3332	0.00	0	0
CHRISTIANA	DARLEY ROAD	DE3333	0.38	289	108
CHRISTIANA	KIAMENSI	DE3342	0.00	0	0
CHRISTIANA	HARMONY	DE3351	2.50	321	802

Period: 01/01/2006 Thru 12/31/2006 - MEDs Exclusive					
FEEDER INFORMATION			Reliability Indices at Feeder Level		
DISTRICT	SUBSTATION	CKT NO.	SAIFI	CAIDI (Minutes)	SAIDI (Minutes)
CHRISTIANA	HARMONY	DE3352	1.17	593	692
CHRISTIANA	HARMONY	DE3353	2.00	198	395
CHRISTIANA	HARMONY	DE3354	0.00	0	0
CHRISTIANA	CHAPEL	DE3358	0.71	478	341

10.2.2. Constrained hours of Operation:

10.2.2.1. Current year and three-year average for the EDC's DPL Zone transmission system

Response to 10.2.2.1:

Year	Trigger Hours	Actual Congestion Hours Counting Toward Trigger ⁽¹⁾	Actual Congestion Hours Not Counting Toward Trigger	Total Congestion Hours
2004	700	533	183	716
2005	600	497	155	652
2006	600	126	279	405
AVG (2004 - 2006)		385	206	591

Year	Trigger Hours	Actual Congestion Hours Counting Toward Trigger ⁽¹⁾	Actual Congestion Hours Not Counting Toward Trigger	Total Congestion Hours
Current Year (2006)	600	126	279	405

⁽¹⁾ Congestion events related to Planned and Forced Maintenance and Load for 2004 and 2005, Forced Maintenance is not included. In the 2006 trigger hours per the Electric Service reliability and Quality Standards it is included in the hours not counting toward the trigger.

10.2.2.2. Current year for the EDC's DPL Zone, classified by cause.

Response to 10.2.2.2:

Constrained Hours of Operation – 2006

Cause	Hours
Load	107.8
Planned Transmission Maintenance	17.8
Forced Transmission Maintenance	7.1
Forced Generation Outages	0.0
Construction	272.3
Force Majeure	0.0
Total	405.0

- 10.3. *The Performance Report shall identify 2% of distribution feeders or 10 feeders, whichever is more, serving at least one Delaware customer, that are identified by the utility as having the poorest reliability. The EDC shall identify the method used to determine the feeders with poorest reliability and shall indicate any planned corrective actions to improve feeder performance and target dates for completion or explain why no action is required. The EDC shall ensure that feeders, identified as having the poorest reliability, shall not appear in any two consecutive Performance Reports without initiated corrective action.*

Response to 10.3:

Methodology of Identifying Poor-Performing Circuits in Delaware Service Territory – 2006

(A) Number of Feeders Identified = 10

This is a greater number than 295 feeders x 2% = 6 Feeders

(B) Tools and Data Used

- DPL uses CPI (Composite Performance Index) methodology that specifically designed for feeder evaluation.
- In order to expedite the improvement process on the poor-performing feeders, DPL uses feeder interruption data for the 12 month period starting from October 1, 2005 through September 30, 2006 for performance evaluation.

(C) Process and Methodology

- MED (Major Event Day) exclusive data based on IEEE STD 1366-2003 was used.
- The CPI feeder evaluation methodology ranks feeder based on combinations of (1) SAIFI, (2) SAIDI, (3) Total Outage Duration, and (4) Number of Sustained Interruptions. A User's Guide of CPI is included as attachment "A" in this section.
- 10 Feeder with the highest CPI are identified.

Attachment A

PHI Feeder Performance CPI Model User's Guide

The Company uses a composite performance index (CPI), unique to Potomac Electric Power Company, Delmarva Power and Light Company and Atlantic City Electric Company to evaluate and rank feeder performance. CPI was developed at PEPCO many years ago and has undergone recent refinement by PA Consulting (formerly PHB-Hagler Bailly). CPI allows the Company to track feeder performance and incorporate all appropriate variables, and to track results of improvement efforts.

CONCEPTUAL FRAMEWORK

CPI is not only calculated on basic variables (interruptions, duration, customers affected, etc.), but also on averaged or combined indices such as System Average Frequency (SAIF) and System Average Interruption Duration (SAID). In total, CPI is composed of four measurements that are applied to each feeder:

- Number of Interruptions (NI),
- Number of Customer Hours of Interruption (CHI),
- System Average Frequency (SAIF), and
- System Average Interruption Duration (SAID).

The basic concept behind CPI and the statistical model is to plot a feeder in four dimensions and measure its distance from the point representing the “ideal” feeder. It is a statistical effort to locate any *outliers* in these categories or a combination of them. It is a sort of weighted average of the four indicators from different angles in a space.

However, because the four measures are not independent of each other, it requires a linear transformation (scaling and rotating) of the original data as well as a reduction of dimensions considered relevant. To understand the dependence between indicators/measures and the reduction in dimensions, consider the case of determining the winner of a decathlon. Even though there are ten original tests (dimensions), the winner should be the athlete that proves best in perhaps four underlying characteristics (principal components): velocity, strength, resistance and agility. Several tests are correlated as they address similar abilities to differing degrees:

- Velocity – short races, hurdles, broad jump, high jump, javelin, pole vault
- Strength – broad jump, high jump, javelin, pole vault, shot put, discus
- Resistance – long races, and the set of all tests together
- Agility – hurdles, pole vault, high jump

To avoid redundancy, the method to determine the winner should try to extract the scores on the four principal components and calculate the results based on them. In the case of CPI, the method for determining feeder performance starts with four variables and creates Principal Components,

and mean and standard deviations for four variables. It then transforms the raw value of the feeder and the origin to calculate the CPI index over three principal components.

Figure 1 illustrates the CPI concept spatially, and *Figure 2* explains CPI process in detail.

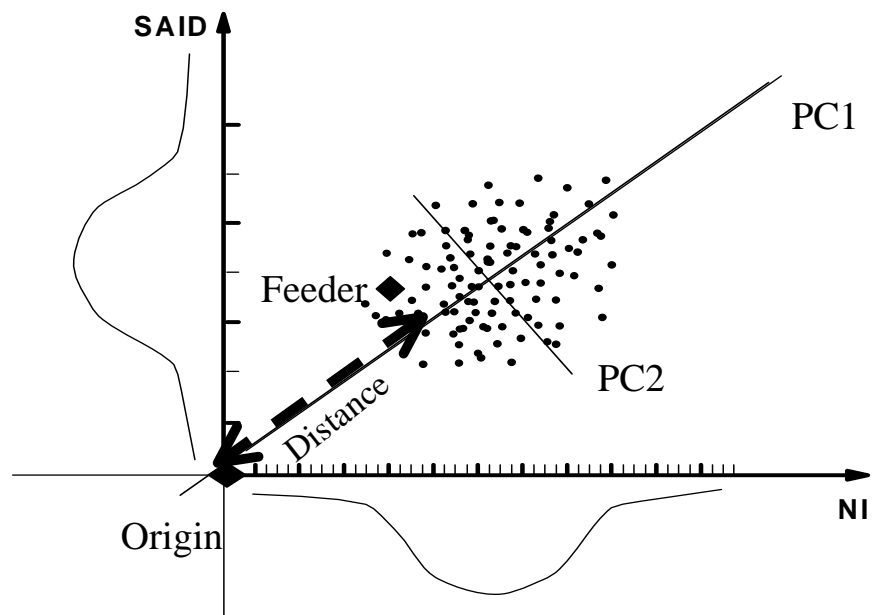


Figure 1 -- Illustration of CPI Concept

DESCRIPTION OF CALCULATION PROCESS

The following flow chart (**Figure 2**) illustrates the process for calculating the Composite Performance Index for a feeder.

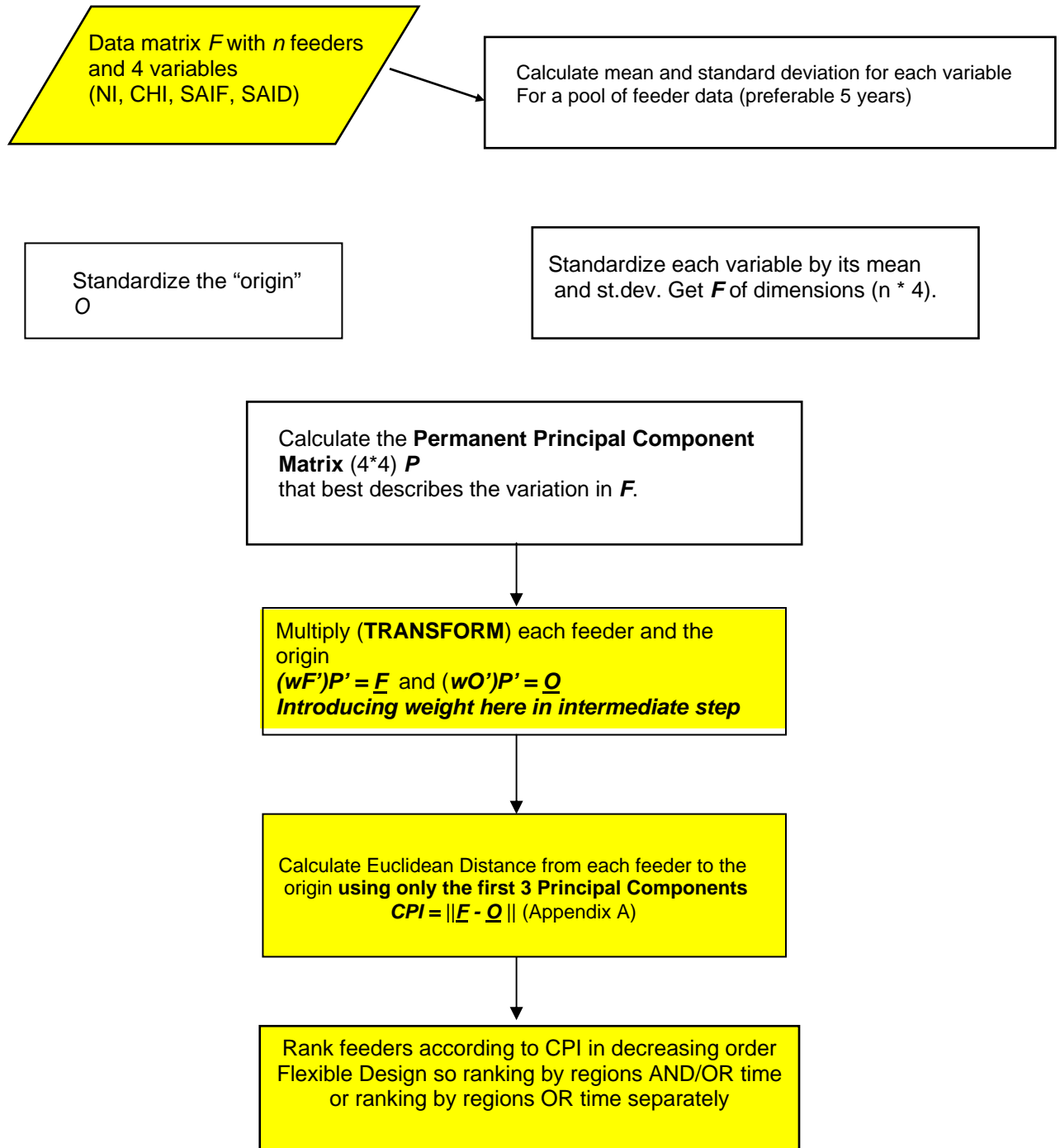


Figure 2 -- Illustration of CPI Concept

Description of Euclidean Distance to Derive CPI

I. Definitions:

Principle Component Matrix (each row is Principal Component vector)

$$P = \begin{bmatrix} PC_1 \\ PC_2 \\ PC_3 \\ PC_4 \end{bmatrix} = \begin{bmatrix} pc_{1,NI} & pc_{1,CHI} & pc_{1,SAIF} & pc_{1,SAID} \\ pc_{2,NI} & pc_{2,CHI} & pc_{2,SAIF} & pc_{2,SAID} \\ pc_{3,NI} & pc_{3,CHI} & pc_{3,SAIF} & pc_{3,SAID} \\ pc_{4,NI} & pc_{4,CHI} & pc_{4,SAIF} & pc_{4,SAID} \end{bmatrix}$$

$$originalFeeders = F = \begin{bmatrix} f_{1,NI} & f_{1,CHI} & f_{1,SAIF} & f_{1,SAID} \\ f_{2,NI} & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ f_{n,NI} & \cdot & \cdot & f_{n,SAID} \end{bmatrix}$$

$$W = \begin{bmatrix} w_{NI} & 0 & 0 & 0 \\ 0 & w_{CHI} & 0 & 0 \\ 0 & 0 & w_{SAIF} & 0 \\ 0 & 0 & 0 & w_{SAID} \end{bmatrix}$$

$$\Sigma = \begin{bmatrix} \sigma_{NI} & 0 & 0 & 0 \\ 0 & \sigma_{CHI} & 0 & 0 \\ 0 & 0 & \sigma_{SAIF} & 0 \\ 0 & 0 & 0 & \sigma_{SAID} \end{bmatrix}$$

II. Intermediate Calculations

$$M = \Sigma * W = \begin{bmatrix} \frac{w_{NI}}{\sigma_{NI}} & 0 & 0 & 0 \\ 0 & \frac{w_{CHI}}{\sigma_{CHI}} & 0 & 0 \\ 0 & 0 & \frac{w_{SAIF}}{\sigma_{SAIF}} & 0 \\ 0 & 0 & 0 & \frac{w_{SAID}}{\sigma_{SAID}} \end{bmatrix}$$

III. Transformation

$$\hat{F} = F * M * P'$$

$$\hat{F} = \begin{bmatrix} f_{1a} & f_{1b} & f_{1c} & f_{1d} \\ f_{2a} & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ f_{na} & \cdot & \cdot & f_{nd} \end{bmatrix}$$

Where

- F is the original feeder data matrix (size $n*4$)
- M is the intermediate calculation matrix (size $4*4$)
- P' is the (transposed) principal component matrix (size $4*4$)

IV. Finalization of CPI – Euclidean Distance Method

For each feeder i take the values for the 3 first components of row i in the last matrix above.

$$CPI_{f_i} = \sqrt{f_{ia}^2 + f_{ib}^2 + f_{ic}^2}$$

(D) Corrective Actions for the 10 poor-performing feeders are listed below:

1. Feeder DE0291 off Millford Cross Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Animals, Trees, Weather.	• Patrol and thermal scan to help identify possible problems and then correct deficiencies.	9/30/2007
	• Inspect and tree trim as necessary	9/30/2007

2. Feeder DE2280 off Millsboro Substation – Millsboro District

Outage Causes	Corrective Actions	Target Dates
Weather, Trees, Equipment Failures.	• Add lightning arrestors.	9/30/2007
	• Patrol and thermal scan to help identify possible problems and then correct deficiencies.	9/30/2007
	• Cable replacement.	9/30/2007
	• Inspect and tree trim as necessary.	9/30/2007

3. Feeder DE0723 off Brandywind Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Animals, Weather, Equipment Failures.	• Patrol and thermal scan to help identify possible problems and then correct deficiencies.	9/30/2007
	• Install additional squirrel guards.	9/30/2007
	• Inspect and tree trim as necessary	9/30/2007

4. Feeder DE0193 off Reybold Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Trees, Equipment Failure & Weather.	• Patrol and thermal scan to help identify possible problems and then correct deficiencies	9/30/2007
	• Replace switches with fuses at Arlon Corp. along Governor Lea Rd.	9/30/2007
	• Inspect and tree trim as necessary.	9/30/2007

5. Feeder DE0134 off West Wilmington Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Animals.	<ul style="list-style-type: none"> • Install squirrel guards. • Patrol and thermal scan to help identify possible problems and then correct deficiencies. • Inspect and tree trim as necessary. 	9/30/2007 9/30/2007 9/30/2007

6. Feeder DE2271 off Millsboro Substation – Millsboro District

Outage Causes	Corrective Actions	Target Dates
Equipment Hit, Weather, Equipment Failures. Tree	<ul style="list-style-type: none"> • Add lightning arrestors • Patrol and thermal scan to help identify possible problems and then correct deficiencies. • Inspect and tree trim as necessary. 	9/30/2007 9/30/2007 9/30/2007

7. Feeder DE0148 off West Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Weather, Equipment Failure	<ul style="list-style-type: none"> • Patrol and thermal scan to help identify possible problems and then correct deficiencies. • Inspect and tree trim as necessary. 	9/30/2007 9/30/2007

8. Feeder DE0603 off Harmony Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Equipment, Animals, Trees.	<ul style="list-style-type: none"> • Replace failing cable along Majestic Dr. • Thermal scanning to help identify possible problems and then correct deficiencies. • Inspect and tree trim as necessary. 	Complete 9/30/2007 9/30/2007

9. Feeder DE0143 off West Substation – Christian District

Outage Causes	Corrective Actions	Target Dates
Trees, Animals.	<ul style="list-style-type: none"> • Install squirrel guards and fuses in Brandywine Springs, Westminster, and Winterbury Hills. • Patrol and thermal scan to help identify possible problems and then correct deficiencies. • Inspect and tree trim as necessary 	9/30/2007 9/30/2007 9/30/2007 9/30/2007

10. Feeder DE0640 off Milltown Road Substation – Christiana District

Outage Causes	Corrective Actions	Target Dates
Equipment Failure, Trees.	<ul style="list-style-type: none"> • Inspect sample of aerial conductor. • Inspect and tree trim as necessary. • Feeder will be thermal scanned and to help identify possible problems and then correct deficiencies. • Install squirrel guards and fuses in Limestone Gardens. • Install squirrel guards in Delpark Manor. 	9/30/2007 9/30/2007 9/30/2007 9/30/2007 9/30/2007

10.4. *The Performance Report shall include annual information that provides the Commission with the ability to assess the EDC's efforts to maintain reliable electric service to all customers in the state of Delaware. Such reporting shall include the following items:*

10.4.1. *Current year expenditures, labor resource hours, and progress measures for each capital and/or maintenance program designed to support the maintenance of reliable electric service, to include:*

Response to 10.4.1:

The progress for Operations and Maintenance (O&M) and Capital work is measured on a monthly basis in each region across PHI. Representatives from the Asset Management and Electric System Operations meet to discuss O&M and capital expenditures, units, man-hours and forecasts relative to the plan. In these meetings, we discuss year-to-date status, scope changes, plan vs. actual, and relocate fund if necessary in all aspects on power delivery system to further improve transmission and distribution reliability.

10.4.1.1. *Transmission vegetation maintenance*

Response to 10.4.1.1:

Current year (2006) expenditures:	\$701,095
Current year (2006) labor hours:	20,032

10.4.1.2. *Transmission maintenance, excluding vegetation, by total, preventive and corrective categories*

Response to 10.4.1.2:

Current year (2006) expenditures:	\$1,896,543
Current year (2006) labor hours:	20,051

10.4.1.3. *Transmission capital infrastructure improvements*

Response to 10.4.1.3:

Current year (2006) expenditures:	\$40,572,035
Current year (2006) labor hours:	115,029

10.4.1.4. *Distribution vegetation maintenance*

Response to 10.4.1.4:

Current year (2006) expenditures:	\$2,197,502
Current year (2006) labor hours:	62,789

10.4.1.5. *Distribution maintenance, excluding vegetation, by total, preventive and corrective categories*

Response to 10.4.1.5:

Current year (2006) expenditures:	\$6,784,745
Current year (2006) labor hours:	65,959

10.4.1.6. *Distribution capital infrastructure improvements*

Response to 10.4.1.6:

Current year (2006) expenditures:	\$45,601,908
Current year (2006) labor hours:	128,161

10.4.1.7. *Transmission and Distribution progress per Section 7, Paragraph 2. and 3*

Section 7, paragraph 2 and 3 are reproduced here for reference

- 7.0. Inspection and maintenance Program
- 7.2. As a maintenance minimum, each EDC shall inspect and maintain as necessary its power transformers, circuit breakers, substation capacitor banks, automatic 3-phase circuit switches and all 600 amp or larger manually operated, gang transmission circuit tie switches at least once every two (2) years.
- 7.3. As a maintenance minimum, each EDC shall inspect all right-of-way vegetation at least once every four (4) years and trim or maintain as necessary, according priorities to circuits that have had significant numbers of vegetation-related outages, while not unduly delaying the trimming of other circuits that inspections indicate currently need trimming. Vegetation management practices should be applied at least once every four (4) years except where growth or other assessments deem it unnecessary

Response to 10.4.1.7:

Inspection and Maintenance

Delmarva Power inspects and maintains the Power Delivery Assets (Transmission, Distribution and Substation) as described in the "2007 Reliability Planning and Studies Report".

For 2006, DP&L completed all planned equipment maintenance based on the assigned cycles which include:

Transmission

- | | |
|---|--------------------------------|
| - Transmission wood pole inspection | 12 to 15 year cycle |
| - Transmission infrared inspection | Annually |
| - Transmission vegetation management | Reliability based program |
| - Aerial inspection | semi-annually |
| - High Pressure Oil or Gas Filled Cable Systems | Annually |
| - Communication / Tower Aviation Warning Lights | Annually |
| - Visual check of navigable water crossings | 5 year cycle |
| - Transmission aerial inspection, "fly by" | 3 year cycle |
| - Transmission aerial inspection, comprehensive | Bulk supply lines – 5 yr cycle |

Distribution

- | | |
|---|--------------------------|
| - Street Light Group Replacement | 6 year cycle |
| - Inspection of Switch Capacitor Banks | Annually |
| - Inspection of Fixed Capacitor Banks | Annual visual inspection |
| - Full operational check of Reclosers and Sectionalizers Electronic Controls tested | Every 3-6 yrs |

- Visual inspection electronically controlled reclosers	Annually
- Distribution wood pole inspections	12 to 15 year cycle
- Inspection of Pad Mounted Distribution Facilities	15 to 30 Year cycle
- Distribution Vegetation Management	Reliability based program
- Distribution infrared inspection	5 year cycle
- Visual check of navigable water crossings	5 year cycle (Infrared Inspection)

Substation

See "2007 Reliability Planning and Studies Report," pages 8 – 10, for extensive listing of substation maintenance activities.

Vegetation

The goal for PHI/DPL is to develop safe reliable transmission and distribution services, minimize interruptions caused by trees and other vegetation, while maintaining a harmonious relationship with the environment.

Vegetation Management is approached with a reliability-based philosophy, through a condition-based maintenance (CBM) program, thereby improving customer satisfaction. Regulatory and community concerns are addressed through proper selection and prioritization of feeders, including Tree SAIFI.

In parallel with the CBM program, PHI continues two other programs which are preventive maintenance (PM) and reactive maintenance (RM). The programs further enhance and maintain reliability related to vegetation issues. Funds are allocated to all three aforementioned programs based on historical performance analysis and regulatory requirements. PM is a cycle-based inspection program designed to maintain vegetation growth within acceptable limits. Inspection and maintenance is performed on all selected distribution and sub-transmission feeders. DPL vegetation programs are feeder-based and are expected to be completed within a 3-4 year timeframe.

All transmission lines are in compliance with NERC Standards and are on a four year maintenance program. In addition, all transmission lines are aerially inspected semi-annually to identify potential problems.

10.4.1.8. Any related process, practice or material improvements

Response to 10.4.1.8:

Delmarva Power (Bay & New Castel Regions) completed standardizing a monthly reporting system tracking budgeted verses actual completed maintenance activities.

10.4.2. Current year OMS data to include:

10.4.2.1. *Number of outages by outage type*

Response to 10.4.2.1:

Number of Transmission Interruptions for 2006:	19
Number of Substation Interruptions for 2006:	41
Number of Distribution Interruptions for 2006:	5,684
Total Number of interruptions (All Types):	5,744

10.4.2.2. *Number of outages by outage cause*

Response to 10.4.2.2:

Number of Interruptions due to Animal:	1,116
Number of Interruptions due to Dig-In:	100
Number of Interruptions due to Equipment Failure:	1,393
Number of Interruptions due to Motor Vehicle Hit:	141
Number of Interruptions due to Others:	341
Number of Interruptions due to Overload:	175
Number of Interruptions due to Tree:	907
Number of Interruptions due to Unknown:	874
Number of Interruptions due to Weather:	697
Total Number of Interruptions (All Causes):	5,744

10.4.2.3. *Total Number of customers at year end*

Response to 10.4.2.3:

Total Number of customers at year end (2006):	292,430
---	---------

10.4.2.4. *Total Number of customers that experienced an outage*

Response to 10.4.2.4:

Total Number of customers affected by an outage: 475,840*

* Some customers have experienced multiple interruptions during the year.

10.4.2.5. *Total customer minutes of outage time:*

Response to 10.4.2.5:

Total customer minutes of outage time:	68,494,727
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10.4.3. *Current year CELID₈ and CEMI₈ results, exclusive of major events, including any effort being made to reduce the occurrences of multiple outages or long duration outages.*

Response to 10.4.3:

CELID₈: 44,830

Definition of CELID₈ according to section 2.0 is reproduced below for reference:

CELID₈ – Represents the total number of customers that have experienced a cumulative total of more than eight hours of outages.

The 44,830 customers identified under CELID₈ were derived through multiple interruptions which exceeded 8 hours for the year. Many of the interruptions were in fact short durations. Although DP&L has no specific program to address customers affected by CELID₈, some of these customers are covered by the CEMI₈ reliability improvement program.

CEMI₈: 0.0088 (or 0.88%)

On two (DE0217 & DE2541) of the seven CEMI₈ circuits no further action was needed. Of the remaining five feeders, all proposed corrective actions have been completed. The feeders are DE0640, DE0141, DE2511, DE0182, and DE0166.

Feeder	Action
DE0166	Patrolled feeder. Install animal guards and fuses on E Roosevelt Ave. Upgrade fuses. Spot tree trimming.
DE0182	Add fuses and animal guards vicinity of New Jersey Ave. & Bacon Ave.
DE2511	Cable & wire replacement, equipment upgrades, and tree trimming as part of the priority feeder program.
DE0217	Data error as one outage was reported multiple times. No work necessary
DE0141	Crews replaced section of exit cable that failed multiple times. Installed animal guards and fuses in Woodland Heights and Chestnut Run.
DE0640	Installed animal guards & fuses in Penndrew Manor
DE2541	The multiple outages were due to transmission outages and vehicle accidents. The transmission system has been upgraded.

10.4.4. Current year customer satisfaction or other measures the EDC believes are indicative of reliability performance.

Response to 10.4.4:

Customer satisfaction is measured in a variety of ways at Delmarva Power and Light. We utilize a combination of perception surveys and transactional surveys. Each year we conduct an extensive customer satisfaction survey and ask a number of questions pertaining to reliability performance. We utilize a third party Market Research Firm to perform this work, Market Strategies Incorporated (MSI). For 2006, our overall customer satisfaction score was 64% satisfied and our satisfaction level with “providing reliable service” is 80% satisfied.

- 10.5. *The Performance Report shall include a summary of each major event for which data was excluded, and an assessment of the measurable impact on reported performance measures.*

Response to 10.5:

Definition of Major Event according to section 2.0 of the Electric Service Reliability and Quality Standards is reproduced below for reference:

Major Event: Means an event consistent with I.E.E.E. 1366, Guide for Electric Power Distribution Reliability Indices Standard as approved and as may be revised. For purposes of this regulation, changes shall be considered to be in effect beginning January 1 of the first calendar year after the changed standard is adopted by the I.E.E.E. Major event interruptions shall be excluded from the EDC's SAIDI, SAIFI, CAIDI and Constrained Hours measurements for comparison to reliability benchmarks. Interruption data for major events shall be collected, and reported according to the reporting requirements outlined in Section 11.

Assessment of the measurable impact on 2006 Major Events

There were 8 days in 2006 that DPL's Delaware Service Territory exceeded the MED threshold based on I.E.E.E. STD 1366-2003. Dates and the impacts are listed below:

DPL's 2006 MED Threshold according to I.E.E.E. STD 1366-2003: 13.84 minutes

<u>Date</u>	<u>Daily SAIDI</u>
02/12/06	22.15 Min
07/02/06	16.23 Min
07/04/06	16.92 Min
07/12/06	13.91 Min
07/18/06	25.63 Min
07/28/06	23.50 Min
09/01/06	83.80 Min
09/02/06	63.60 Min

Total "Excludable" for the above 8 MEDs resulted to 199,535 customer Affected and 77,709,959 customer minutes of interruption. It translated to SAIFI of 0.68 and SAIDI of 265 minutes.

In addition, there was a Major Event Report prepared for the Labor Day Storm (09/01/06 through 09/04/06), during which more than 10% of DP&L's customers experienced a sustained outage during a 24 hour period. The Major Event Report was filed to the Commission on 09/25/2006.

- 10.6. *In the event that an EDC's reliability performance measure does not meet an acceptable reliability level for the calendar year, the Performance Report shall include the following:*

10.6.1. For not meeting SAIDI, an analysis of the customer service interruption causes for all delivery facilities by dispatch, response and repair times that significantly contributed to not meeting the benchmark.

Response to 10.6.1:

No action required

The SAIDI of DP&L's Delaware service territory is measured at 234 minutes for 2006. This is lower than the established Benchmark of 295 minutes as established in section 4.3.1.2 of the Electric Service Reliability and Quality Standards.

10.6.2. For not meeting Constrained Hours of Operation, an analysis of significantly constraints by cause.

Response to 10.6.2:

No action required

The Constraint Hours of Operation of DP&L's Delaware service territory is measured at 126 hours for 2006. This is lower than the established Benchmark standard of 600 hours as established in section 4.3.2 of the Electric Service Reliability and Quality Standards.

10.6.3. A Description of any corrective actions that are planned by the EDC and the target dates by which the corrective action shall be completed.

Response to 10.6.3:

No action required (see responses to 10.6.1 and 10.6.2).

10.6.4. If no corrective actions are planned, an explanation shall be provided.

Response to 10.6.4:

DP&L's Delaware performances as stated in 10.6.1 10.6.2 are lower than the benchmark. No action required.

10.7. The Performance Report shall include copies of current procedures identifying methods the EDC uses to ensure the electric supplier delivery of energy to the EDC at locations and in amounts which are adequate to meet each electric supplier's obligation to its customers.

Response to 10.7:

Conectiv Energy Supply Inc. (CESI) was the electric supplier for the Standard Offer Service (SOS) load obligation in DE through April 30, 2006 and it ensured the integrity of supply by doing the following:

- CESI actively participates on PJM committees and working groups. All of CESI's generation resources are dedicated capacity resources for PJM. As such, they are available to meet PJM's energy needs.
- CESI's credit requirements only allow the Company to purchase supplies from credit worthy entities with an investment grade rating and we continuously monitor the suppliers' credit status.

Delmarva Power & Light Company (Delmarva) currently provides electric supply service to Delaware customers through terms and conditions embodied in a settlement agreement approved by the Delaware Public Service Commission (Commission) in Docket No. 04-391. The settlement took effect when fixed price offers expired on April 30, 2006 and requires that Delmarva procure Standard Offer Service (SOS) supply to its customers through the competitive selection of wholesale supply. The settlement agreement also provided a description of the procedures and methods to be used for the procurement of supply. Such description, referred to as the Bid Plan, consisted of the Full Requirements Service Agreement ("FSA") and the Request For Proposals ("RFP").

- The RFP is for full requirements wholesale supply service to meet the needs of Delmarva's SOS retail load obligations in Delaware. The wholesale bidding process seeks to solicit proposals from bidders interested in providing Fixed Price SOS ("FP-SOS") by customer Service Types and contract terms of various lengths. Winning bidders are selected and contracts awarded based on the lowest price offered. (See attachment for the current RFP).
- The FSA contains the parties' rights and obligations for providing and receiving full requirements wholesale electric supply, including those rights and obligations associated with credit and performance assurances. No provision within the FSA is negotiable and a master FSA is executed with each supplier for all winning transactions resulting from the RFP. (See attachment for the current FSA and exhibits).

10.8. *The Performance Report shall include certification by an officer of the EDC of the data and analysis and that necessary projects, maintenance programs and other actions are being performed and adequately funded by the Company as addressed in its annual plans.*

Response to 10.8:

See page 2 for certification.

- 10.9. *Unless a generation company participates in the Generation Working Group, each generation company shall submit by April 30 of each year an annual Reliability Performance Report. The performance report shall include the individual unit and average station forced outage rates and any anticipated changes that may impact the future adequacy of supply. Each generation company shall also provide the Commission with at least a one-year advanced notification of any planned unit retirements, planned re-powering or planned long-term unit de-ratings.*

Response to 10.9:

No Response Required – DP&L is not a generation company.

- 10.9.1. *The performance report required by Section 10.9 shall include the individual unit and average station forced outages rates and any anticipated changes that may impact the future adequacy of supply.*

Response to 10.9.1:

No Response Required – DP&L is not a generation company.

- 10.9.2. *Each generation company not a member of a Generation Working Group shall also provide the Commission with at least a one-year advanced notification of any planned unit retirements, planned re-powering or planned long-term unit de-ratings.*

Response to 10.9.2:

No Response Required – DP&L is not a generation company.

- 10.10. *In lieu of submission of an annual Reliability Performance and one-year advanced notification, as required in Section 10.9, Generation companies may voluntarily participate in a Generation Working Group.*

Response to 10.10:

No Response Required – DP&L is not a generation company.

- 10.10.1. *The Commission shall designate one member of the Commission Staff to chair the working Group. Such individual shall refer to as the "Commission Staff Member."*

Response to 10.10.1:

No Response Required – DP&L is not a generation company.

- 10.10.2. *Meeting of the Generator Working Group shall be no less frequently than semiannually shall be scheduled by the Commission Staff Member.*

Response to 10.10.2:

No Response Required – DP&L is not a generation company.

10.10.3. The purpose of the semi-annual meetings will be for the Commission Staff Member and the participating Generation company or companies, as the case may be, to agree upon the specific parameters of generation information to be provided by member Generation companies to the Commission and how and when such information should be presented to the Commission. The specific parameters and presentation of information need not be identical for Generation Company, as agreed by the Generator Working Group.

Response to 10.10.3:

No Response Required – DP&L is not a generation company.

10.10.4. In the event of a disagreement between the Commission Staff Member and a Generation company, the Generator Working Group will attempt to resolve the disagreement by consensus. If consensus cannot be achieved in a reasonable time, the Generator Working Group of any member may request a determination by the Commission of the issue.

Response to 10.10.4:

No Response Required – DP&L is not a generation company.

10.10.5 To allow Generation companies to participate openly without disclosing commercially-sensitive information to each other, the semi-annual Working Group meetings must be supplemented with meetings between the Commission Staff Member and individual Generation companies. Such individual meetings may be requested, on an as needed basis, by the Commission Staff Member or by a Generation company.

Response to 10.10.5:

No Response Required – DP&L is not a generation company.

10.10.6 The Generation company or companies, as the case may be, shall use its or their best efforts to provide the requested information within an agree-upon period of time.

Response to 10.10.6:

No Response Required – DP&L is not a generation company.

10.10.7 The Commission and each member o the Generator Working Group shall implement all steps necessary to protect the confidentiality of commercially sensitive information provided by the Generation company or companies, as the case may be.

Response to 10.10.7:

No Response Required – DP&L is not a generation company.

10.10.8. Each of the Generator Working Group reserves the right to not provide information of a commercially-sensitive nature to all or some of the members of the Generator Working Group unless and until it obtains legally sufficient protection against non-disclosure of such information, and each such member shall take reasonable step's to procure such legally sufficient protection, to the extent these Rules do not constitute such protection.

Response to 10.10.8:

No Response Required – DP&L is not a generation company.

10.10.9 Any Generation company participating in the Generator Working Group may withdraw at any time.

Response to 10.10.9:

No Response Required – DP&L is not a generation company.